REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action ("Action") dated July 12, 2004 has been received and its contents carefully reviewed.

Claims 1-51 are currently pending, wherein claim 1 has been amended to correct typographical errors. Applicants respectfully request favorable reconsideration in view of the remarks presented herein below.

In paragraph 1 of the Action, the Examiner appears to object to the abstract. However, the Examiner's specific objection to the abstract is unclear. Accordingly, Applicants respectfully request that the Examiner provide further information regarding his concerns, if any, with the abstract as filed.

In paragraph 3 of the Action, the Examiner rejects claims 17-33 and 47-50 under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,091,767 to Westerman ("Westerman"). Applicants respectfully traverse this rejection.

In order to support rejection under 35 U.S.C. §102, the applied reference must teach each and every claimed element. In the present case, claims 17-33 and 47-50 are not anticipated by Westerman for at least the reason that Westerman fails to disclose each and every claimed element as discussed below.

Independent claim 17 defines a method for calculating an optimum display size for a visual object. The method includes, *inter alia*, calculating a step size for a predetermined number of frames of the visual object, deriving a coding difficulty value as a function of the step size, and determining the optimum display size for the visual object based on at least one of the coding difficulty value and a visual object transmission rate.

Independent claim 17 is patentably distinguishable over Westerman for at least the reason that Westerman fails to disclose calculating a step size for a predetermined number of frames, deriving a coding difficulty value as a function of the step size, and determining the optimum display size for the visual object as recited in claim 17.

In rejecting claim 17, the Examiner asserts that Westerman discloses a method as claimed inasmuch as Westerman discloses a video encoding system which encodes a video input based in part on viewer and display information, such as the size of the display and the position of the viewer. To support this assertion, the Examiner points to Fig. 2 and columns 6 and 8 of Westerman. This assertion is unfounded for the following reason.

Westerman discloses altering the video encoding process based on information regarding the location and/or position of a viewer and information regarding the display device. In contrast, the present invention determines the optimum display size based on a coding difficultly or a visual object transmission rate. Altering the encoding process based on display information is not equivalent to determining the optimum display size for an encoded video signal. For example, the system of Westerman fails to account for decreases in picture quality due to the encoding process which can result in poor picture quality when the video is viewed full screen. Accordingly, Westerman fails to anticipate claim 17.

Independent claim 47 defines a method for calculating an optimum display size for a visual object. The method includes, *inter alia*, compressing the visual object with a visual object encoder, determining the optimum display size for the visual object based on at least one of a coding difficulty value and a visual object transmission rate; and displaying a message indicating the optimum display size for the encoded visual object. Claim 47 is patentably distinguishable over Westerman for at least the reason that Westerman fails to disclose displaying a message indicating the optimum display size for the encoded visual object.

In rejecting claim 47, the Examiner asserts that Westerman discloses displaying a message indicating the optimum display size. To support this assertion, the Examiner points to reference numeral 56 of Fig. 2 and to column 7, lines 1-25 of Westerman. This assertion is unfounded for the following reason.

Nowhere in the cited passage (i.e., column 7, lines 1-25) is there any disclosure of displaying a message, much less a message indicating the optimum display size for an encoded visual object as claimed. The cited passage discloses the type and size of the display device to be used to display the encoded visual object can be used to alter the encoding process. For example, where the display device is a plasma device it is advantageous to transmit more high frequency components as the display device is capable of displaying such information as opposed to a consumer grade television which is not capable of display high frequency components. However, nowhere in Westerman is there any disclosure of displaying a message indicating the optimum display size for an encoded visual object as claimed. Accordingly, Westerman fails to anticipate independent claim 47.

Claims 18-33 and 48-50 variously depend from independent claims 17 and 47. Therefore, claims 18-33 and 48-50 are patentably distinguishable over Westerman for at least those reasons presented above with respect to claims 17 and 47. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 17-33 and 48-50 under 35 U.S.C. §102(e).

In paragraph 4 of the Action, the Examiner rejects claims 40-46 under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,204,887 to Hiroi ("Hiroi"). Applicants respectfully traverse this rejection.

Independent claim 40 defines a system for calculating an optimum display size for a visual object. The system includes, *inter alia*, a decoder for decompressing a visual object, for

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calculating a step size for a predetermined number of frames of the visual object, for estimating a coding difficultly value as a function of the step size; a display size selector for determining an optimum display area of the visual object based on the estimated coding difficultly and a visual object transmission rate; and a display device for displaying a message indicating the optimum display size for the encoded visual object.

Independent claim 40 is not anticipated by Hiroi for at least the reason that Hiroi fails to disclose each and every claimed element. For example, Hiroi fails to disclose a decoder for estimating a coding difficulty value as a function of the calculated step size, and a display device for displaying a message indicating the optimum display size for the encoded visual object.

In rejecting claim 40, the Examiner asserts that Hiroi discloses a decoder as claimed in as much as Hiroi discloses a parameter control function. However, nowhere in Hiroi is there any disclosure or suggestion that the control parameter of Hiroi calculates a step size or that the decoder estimates a coding difficulty value as a function of the calculated step size. Accordingly, Hiroi fails to anticipate claim 40.

Claims 41-46 variously depend from independent claim 40. Therefore claims 41-46 are patentably distinguishable over Hiroi for at least those reasons presented above with respect to claim 40. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 40-46 under 35 U.S.C. §102(e).

In paragraph 6 of the Action, the Examiner rejects claims 1-11, 13-16, 34-39 and 51 under 35 U.S.C. §103(a) as allegedly being unpatentable over Hiroi in view of U.S. Patent No. 5,072,297 to Kanazawa ("Kanazawa"). Applicants respectfully traverse this rejection.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some motivation to combine/modify the cited references. Second, there must be a reasonable expectation of success. Finally, the combination must teach each and every

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claimed element. In the present case, claims 1-11, 13-16, 34-39 and 51 are not properly rejected under 35 U.S.C. §103 for at least the reason that the Examiner fails to establish a *prima facie* case of obviousness as discussed below.

Independent claim 1 defines a method for calculating an optimum display size for a visual object. The method includes, *inter alia*, compressing a visual object with a visual object encoder; calculating one or more signal to noise ratios for a predetermined number of frames of the visual object; calculating a coding difficulty value as a function of the one or more calculated signal to noise ratios; and determining the optimum display size for the visual object based on at least one of the coding difficulty value and a visual object transmission rate.

In rejecting claim 1, the Examiner asserts that the combination of Hiroi and Kanazawa discloses a method for calculating an optimum display size as claimed inasmuch as Hiroi discloses a method of displaying visual objects which suggests a set of window sizes to the user which allows for the decoding and display of programs without exceeding the available system resources, and Kanazawa discloses a typical relationship between bit error rate and signal to noise ratio. This assertion is unfounded for the following reason.

First, nowhere in Hiroi or Kanazawa is there any disclosure or suggestion of calculating a coding difficulty value as a function of signal to noise ratios calculated for a predetermined number of frames of a visual object. Second, nowhere in Hiroi or Kanazawa is there any disclosure or suggestion of determining the optimum display size for a visual object based on at least one of the coding difficulty and a visual object transmission rate. Since Hiroi and Kanazawa both fail to disclose or suggest a method that includes calculating a coding difficulty and determining an optimum display size as recited in claim 1, the combination of these two references cannot possibly disclose or suggest said steps. Therefore, even if one skilled in the art were motivated to combine Hiroi and Kanazawa as suggested by the Examiner, the combination

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would still fail to render claim 1 unpatentable for at least the reason that the combination fails to disclose each and every claimed element.

Independent claim 35 defines a system for calculating an optimum display size for a visual object. The system includes, *inter alia*, an encoder for compressing a visual object, for calculating a signal to noise ratio for a predetermined number of frames of the visual object, and for calculating a coding difficulty value as a function of the signal to noise ratios; a display size selector for determining an optimum display size of the visual object based on the coding difficulty value and a visual object transmission rate; and a display device for displaying a message indicating the optimum display for the encoded visual object.

Independent claim 35 is patentably distinguishable over the combination of Hiroi and Kanazawa for at least the reason that the combination fails to disclose or suggest an encoder for calculating a coding difficulty value as a function of a signal to noise ratio and a display size selector for determining an optimum display size of the visual object based on the coding difficulty value and a visual object transmission rate as claimed. (See discussed above with regard to claim 1).

Claims 2-11, 13-16, 34, 36-39 and 51 variously depend from independent claims 1 and 35. Therefore, claims 2-11, 13-16, 34, 36-39 and 51 are patentably distinguishable over the combination of Hiroi and Kanazawa for at least those reasons presented above with respect to claims 1 and 35. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-11, 13-16, 34-39 and 51 under 35 U.S.C. §103.

In paragraph 7 of the Action, the Examiner rejects claims 12 and 43 under 35 U.S.C. §103(a) as allegedly being unpatentable over the combination of Hiroi and Kanazawa, further in view of U.S. Patent No. 5,649,052 to Kim ("Kim"). Applicants respectfully traverse this rejection.

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As discussed above, the first of the three criteria required to establish a *prima facie* case of obviousness is that there must be some motivation to combine the applied reference. Furthermore, the mere fact that two references can be combined is not in an of itself sufficient to establish the resultant combination obvious. As stated in section 2143 of the MPEP, "[t]he mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) emphasis in the original.

In rejecting claims 12 and 43, the Examiner asserts that although the combination of Hiroi and Kanazawa fails to disclose calculating the coding difficultly value as a function of a harmonic mean of the signal to noise ratio, Kim teaches "a harmonic mean of a peak to noise ratio." Furthermore, the Examiner asserts that it would have been obvious to modify the "teachings of Kim into the combined system of Hiroi and Kanazawa for the same purpose of determine a peak to noise ratios for predetermined frames." These assertions are unfounded for the following reasons.

Neither the applied references nor the Office Action provides any suggestion of the desirably of determining a coding difficulty value as a function of a harmonic mean of the signal to noise ratio. To the contrary, the Examiner only asserts that it would have been obvious to modify the combination of Hiroi and Kanazawa to include functionality allegedly disclosed in Kim in order to reduce an error signal during transmission. However, it is unclear how the modification suggested by the examiner, i.e., the calculation of a coding difficulty value as a function of a harmonic mean of the signal to noise ratio, would reduce an error signal during transmission. Accordingly, absent proper motivation to combine the applied reference, the rejection of claims 12 and 45 is improper.

Furthermore, even if one skilled in the art were motivated to combine Hiroi, Kanazawa, and Kim as suggested by the Examiner, the combination would still fail to render claims 12 and 45 unpatentable for at least the reason that the combination fails to disclose each and every claimed element.

Kim discloses that audio distortions are usually measured in terms of the total harmonic distortion which is defined as the root mean square sum of all the individual harmonic-distortion component. However, nowhere in Kim is there any disclosure or suggestion of determining a harmonic mean of a signal to noise ratio, much less calculating a coding difficulty value as a function of a harmonic mean of a signal to noise ratio, as claimed. As correctly noted by the Examiner, the combination of Hiroi and Kanazawa fails to disclose calculating a coding difficulty value as recited in claims 12 and 43. Since Hiroi, Kanazawa, and Kim each fail to disclose or suggest calculating a coding difficulty value as a function of a harmonic mean of the signal to noise ration, the combination of these three references cannot possibly disclose or suggest said feature. Therefore, even if one skilled in the art were motivated to combine Hiroi, Kanazawa, and Kim, the combination would still fail to render claims 12 and 43 unpatentable for at least the reason that the combination fails to disclose each and every claimed element. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 12 and 43 under 35 U.S.C §103.

The application is in condition for allowance. Notice of same is earnestly solicited. Should, for any reason, the Examiner find the application other than in condition for allowance, Applicants request the Examiner call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: **November 12, 2004**   Respectfully submitted,

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